The Minimum Sum Vertex Cover Problem

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Let f be an ordering of the vertices of an n-vertex graph G, meaning a numbering using $\{1, 2, \ldots, n\}$. For each edge uv, let $g(uv) = \min\{f(u), f(v)\}$. The minimum sum vertex cover number (or the cost) $\mu_s(G)$ of G is defined by $\mu_s(G) = \min \sum_{e \in E(G)} g(e)$, where the minimum is taken over all orderings f. We present results on this parameter for several graph classes.

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